

**SELF-CALIBRATING WIDEBAND PHASE
CONTINUOUS SYNTHESIZER AND ASSOCIATED METHODS**

Abstract of the Disclosure

[0040] The synthesizer and method provide a relatively wideband swept frequency signal and include generating a first swept frequency signal with a first generator, and successively switching between different frequency signals with a second generator. Such switching creates undesired phase discontinuities in the output swept frequency signal. The first swept frequency signal is combined with the successively switched different frequency signals to produce the relatively wideband swept frequency signal, and the second generator is calibrated to reduce the undesired phase discontinuities during switching based upon the output swept frequency signal.